

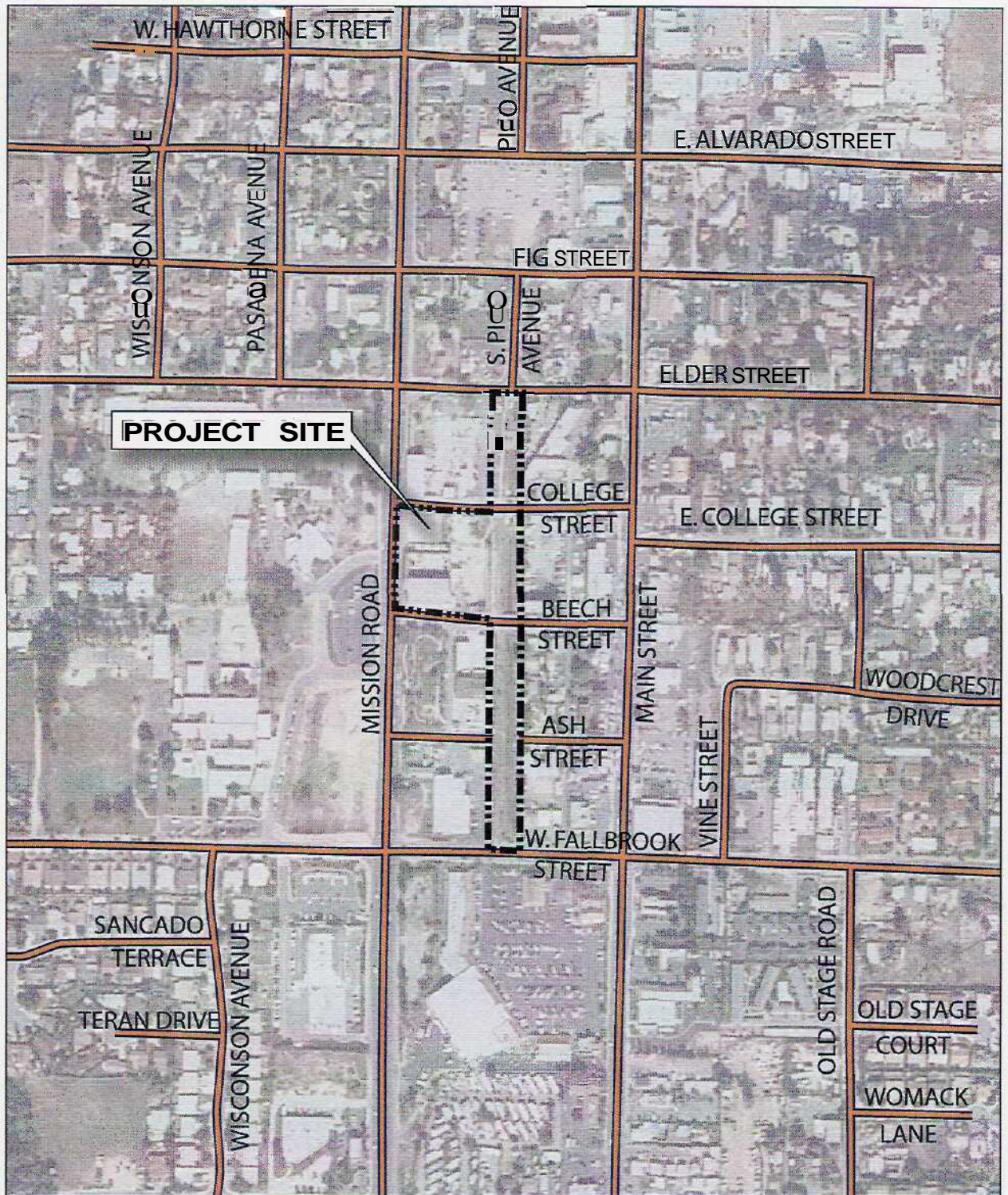
**Figure I**

Regional Map

FALLBROOK CREEK RESTORATION PLAN



01-15-2003

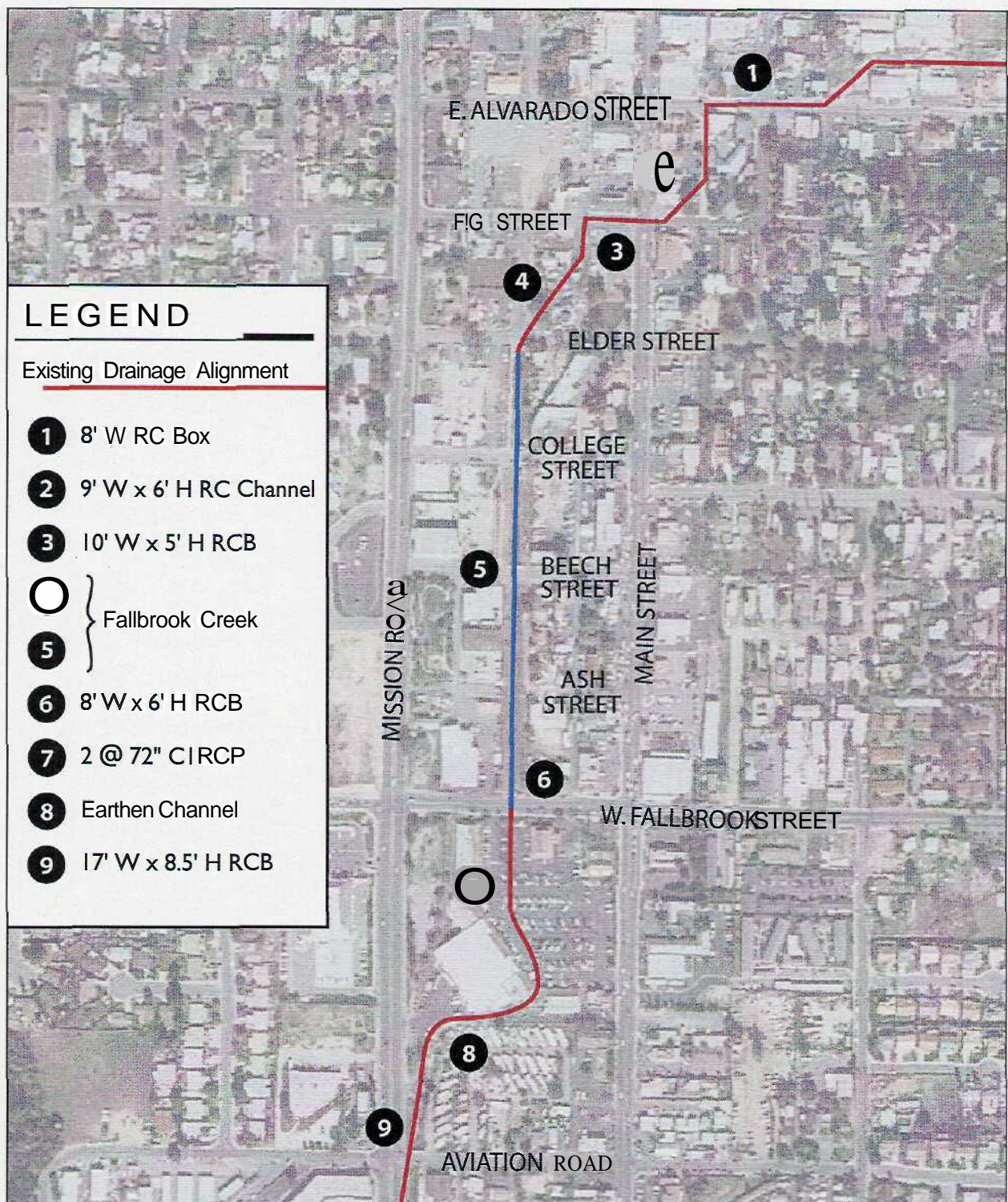


**Figure 2**

Vicinity Map

FALLBROOK CREEK RESTORATION PLAN



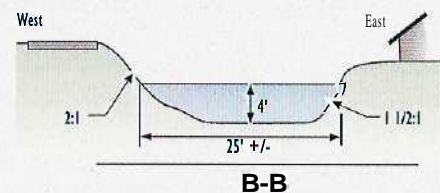
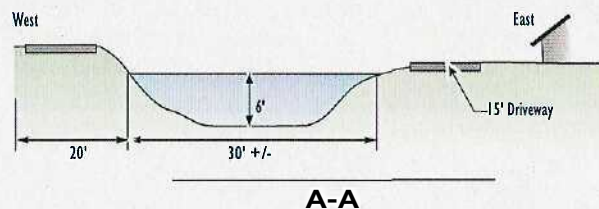
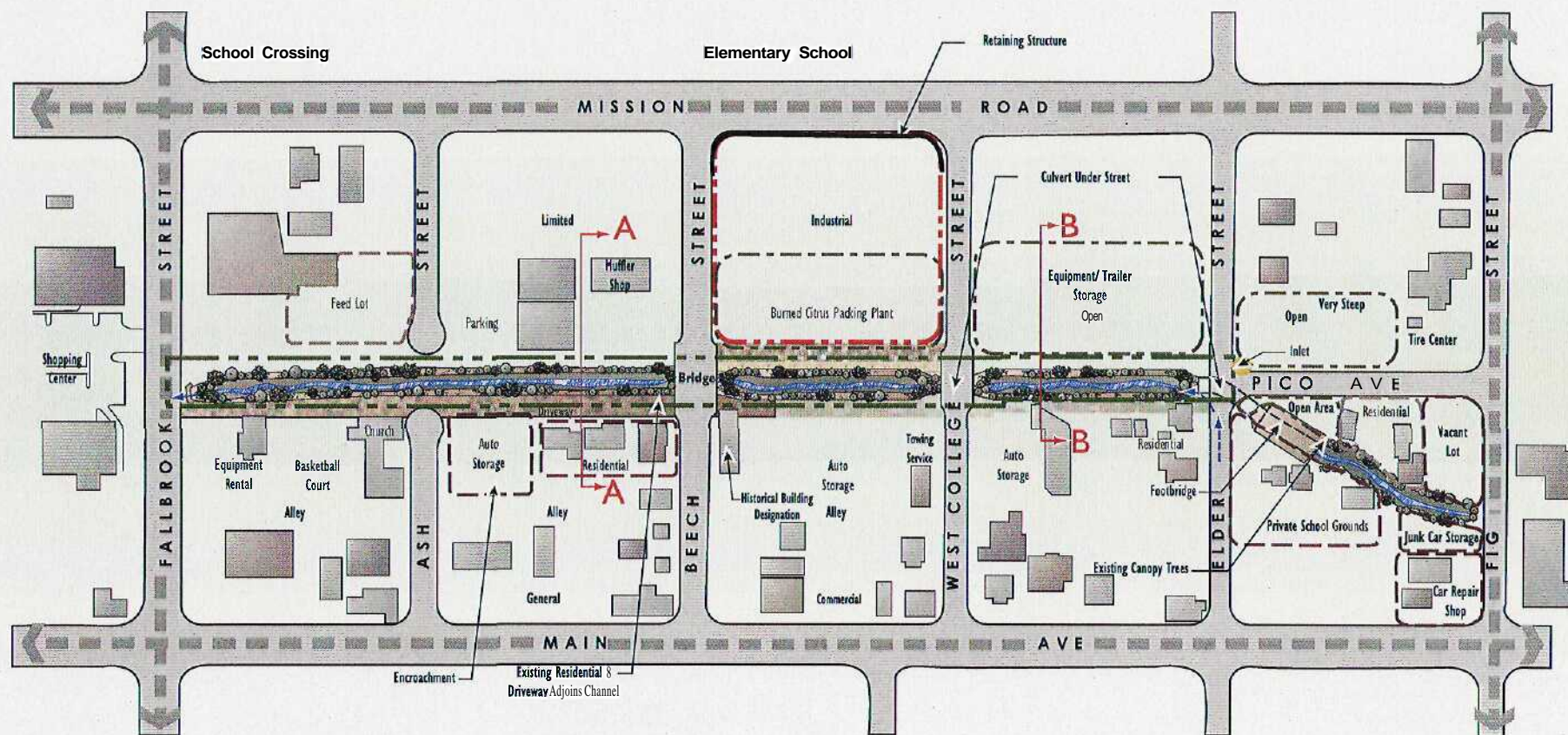


**Figure 3**

Existing Drainage Facilities

# FALLBROOK CREEK RESTORATION PLAN





#### LEGEND

- Project Site
- Currently Open Area (Private Property)
- Potential Basin Site

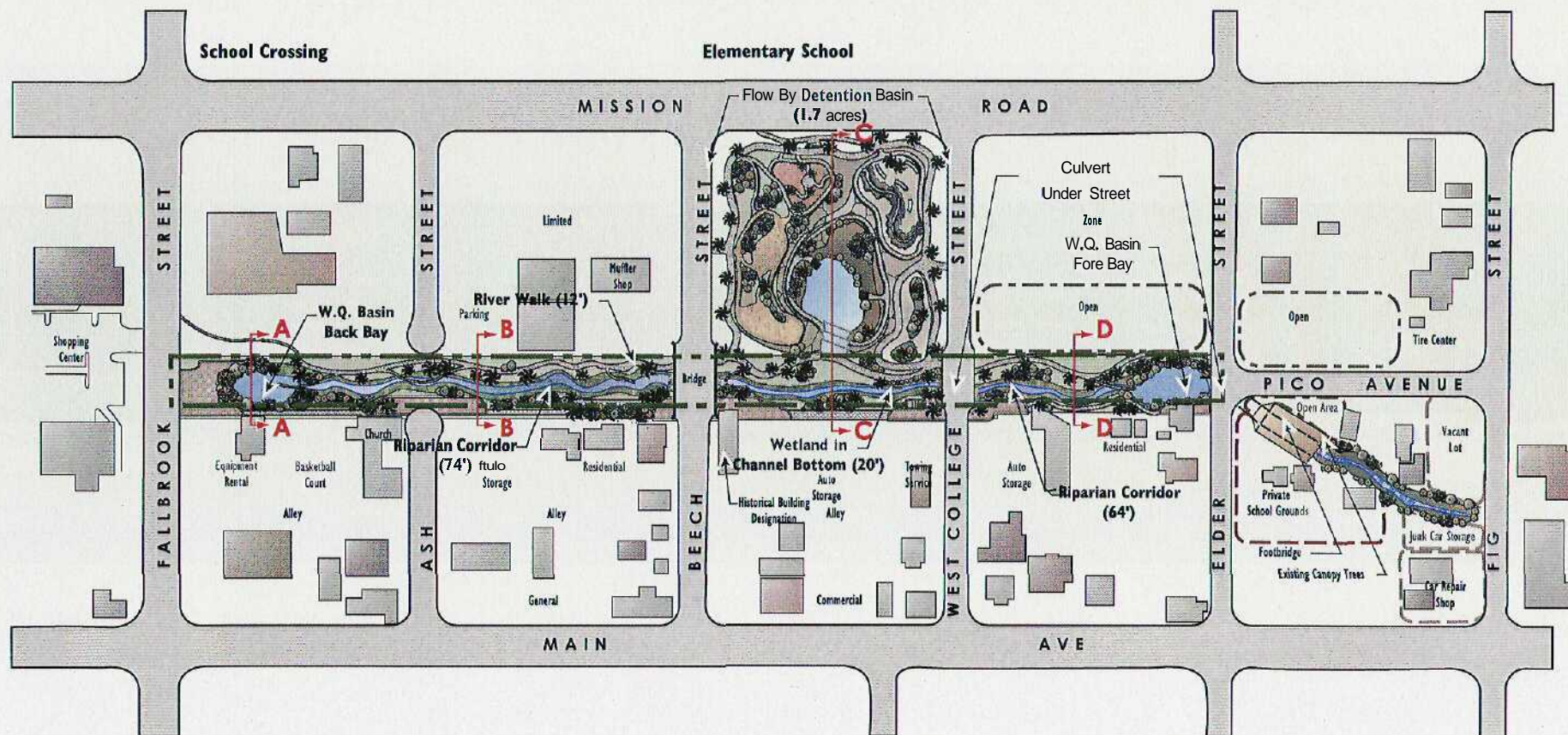
**Figure 4**  
 Existing Condition  
**FALLBROOK CREEK RESTORATION PLAN**



FUSCO  
 PARTNERS

02-10-2003





# LEGEND

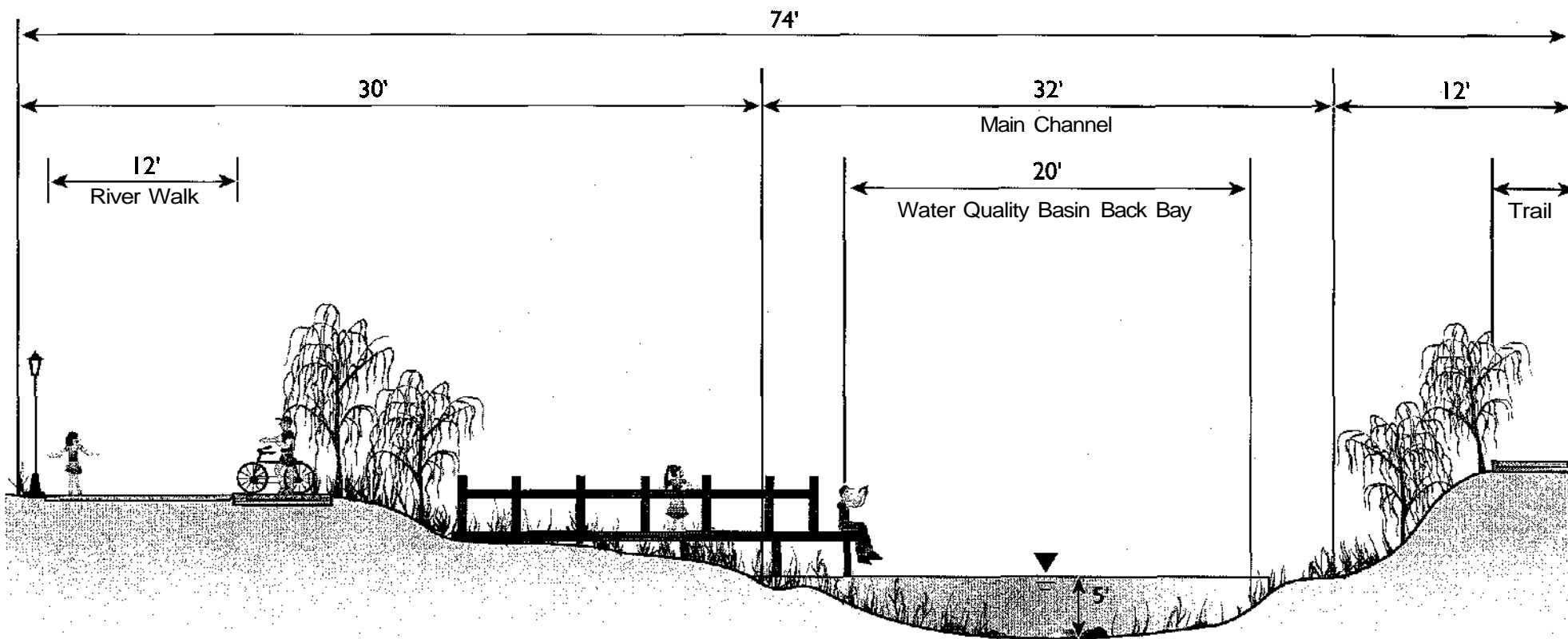
- Riparian Corridor
- Currently Open Area (Private Property)

Figure 5  
Proposed Condition  
**FALLBROOK CREEK RESTORATION PLAN**



FALLBROOK  
FOUNDATION

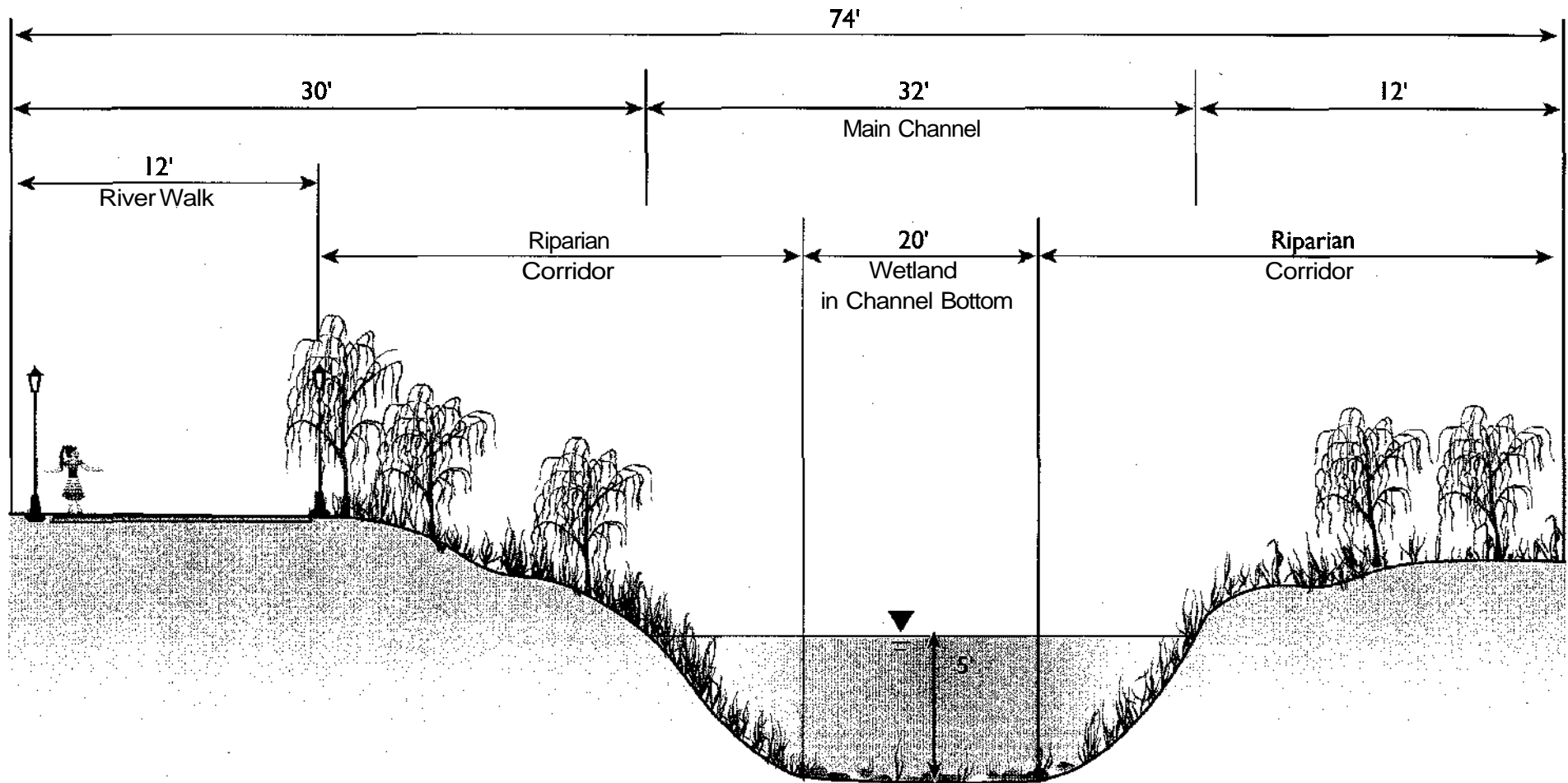
02-10-2003



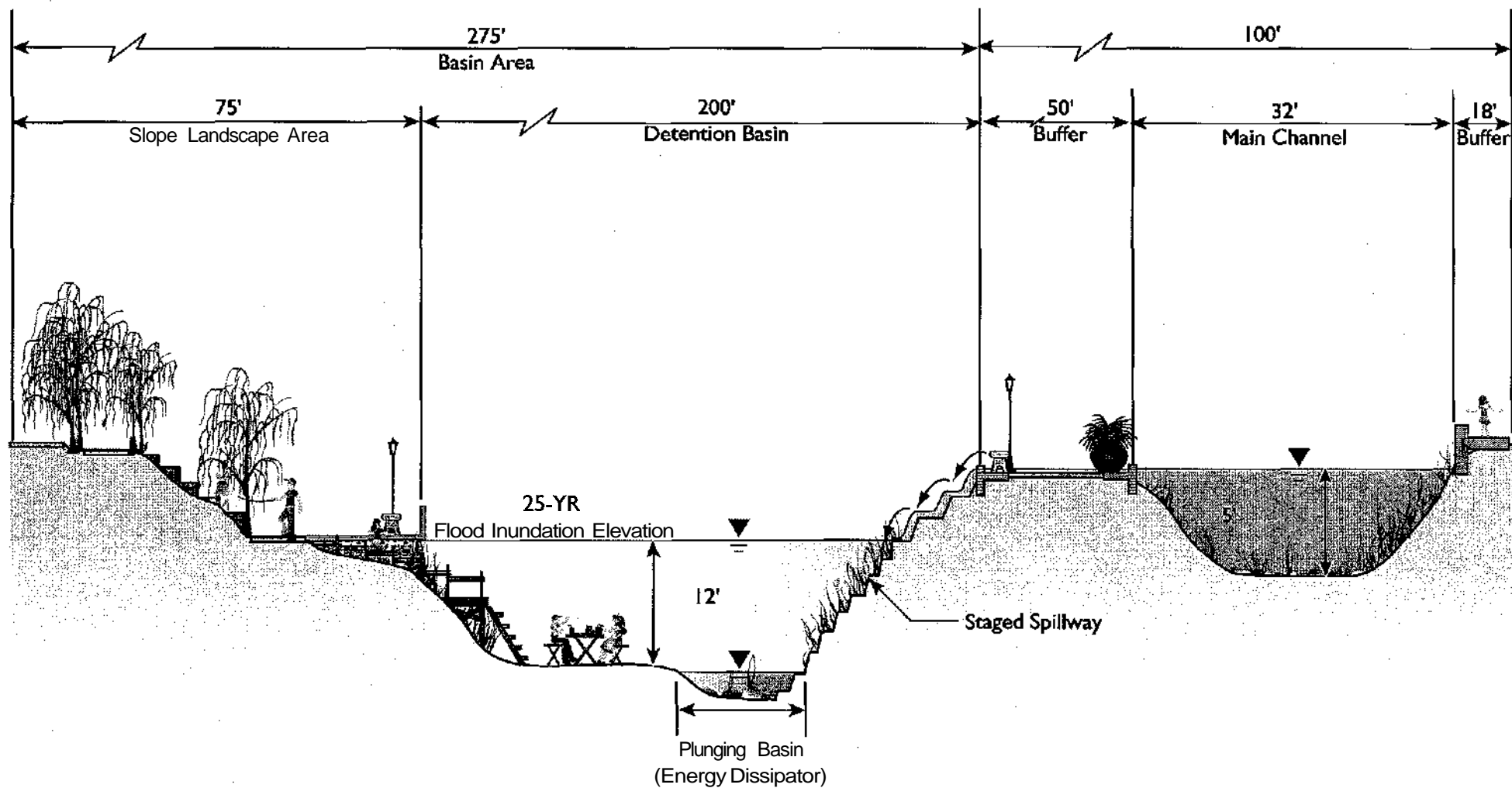
**Figure 6**

Section View A-A

FALLBROOK CREEK RESTORATION PLAN

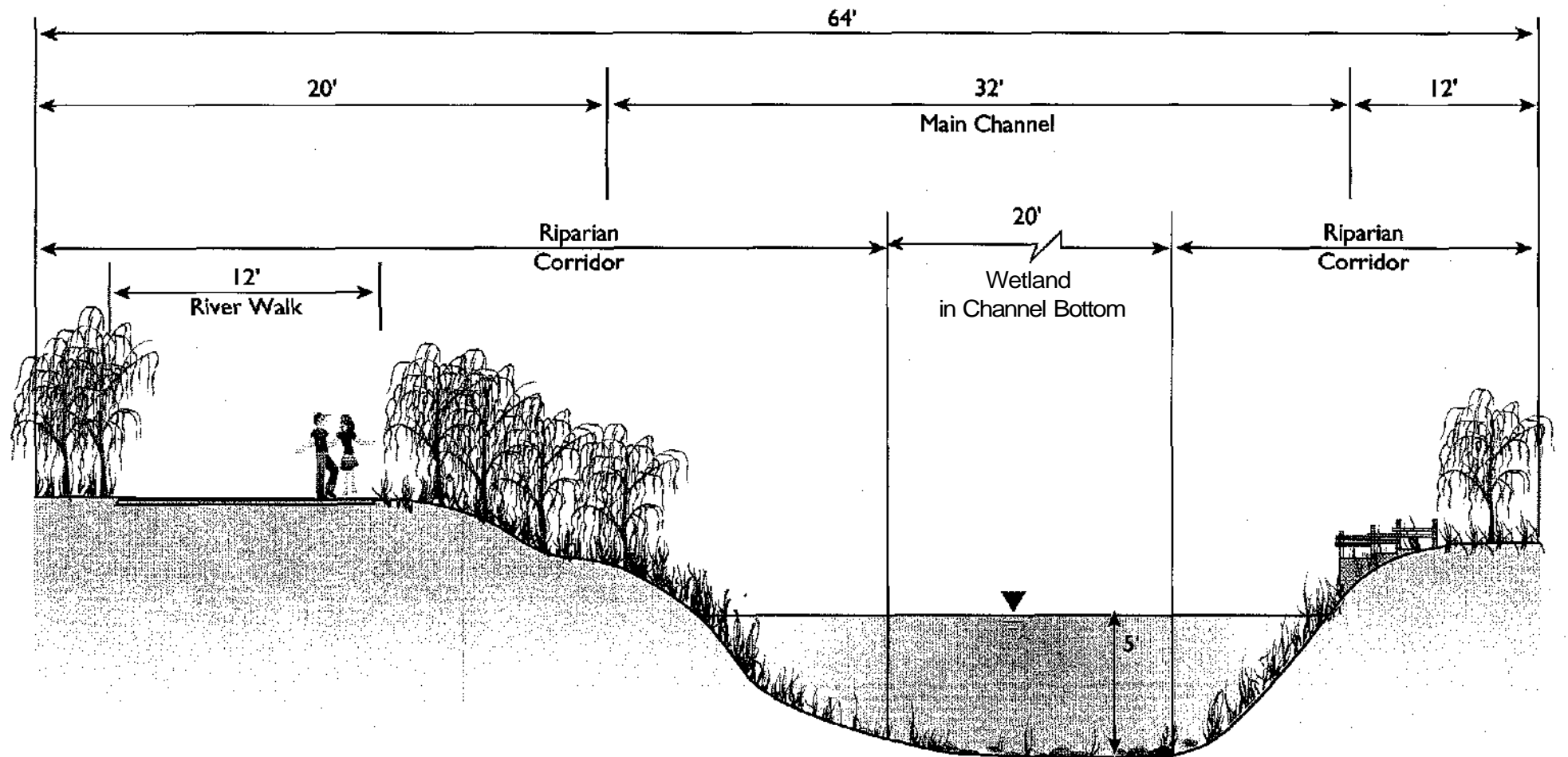


**Figure 7**  
Section View B-B  
**FALLBROOK CREEK RESTORATION PLAN**



**Figure 8**  
 Section View C-C  
 FALLBROOK CREEK RESTORATION PLAN





**Figure 9**

Section View D-D

FALLBROOK CREEK RESTORATION PLAN





Existing Flood Inundation Map

## FALLBROOK CREEK RESTORATION PLAN

--- 100-YR Flood Boundary



FALLBROOK  
CALIFORNIA

02-10-2003





Proposed Flood Inundation Map  
**FALLBROOK CREEK RESTORATION PLAN**

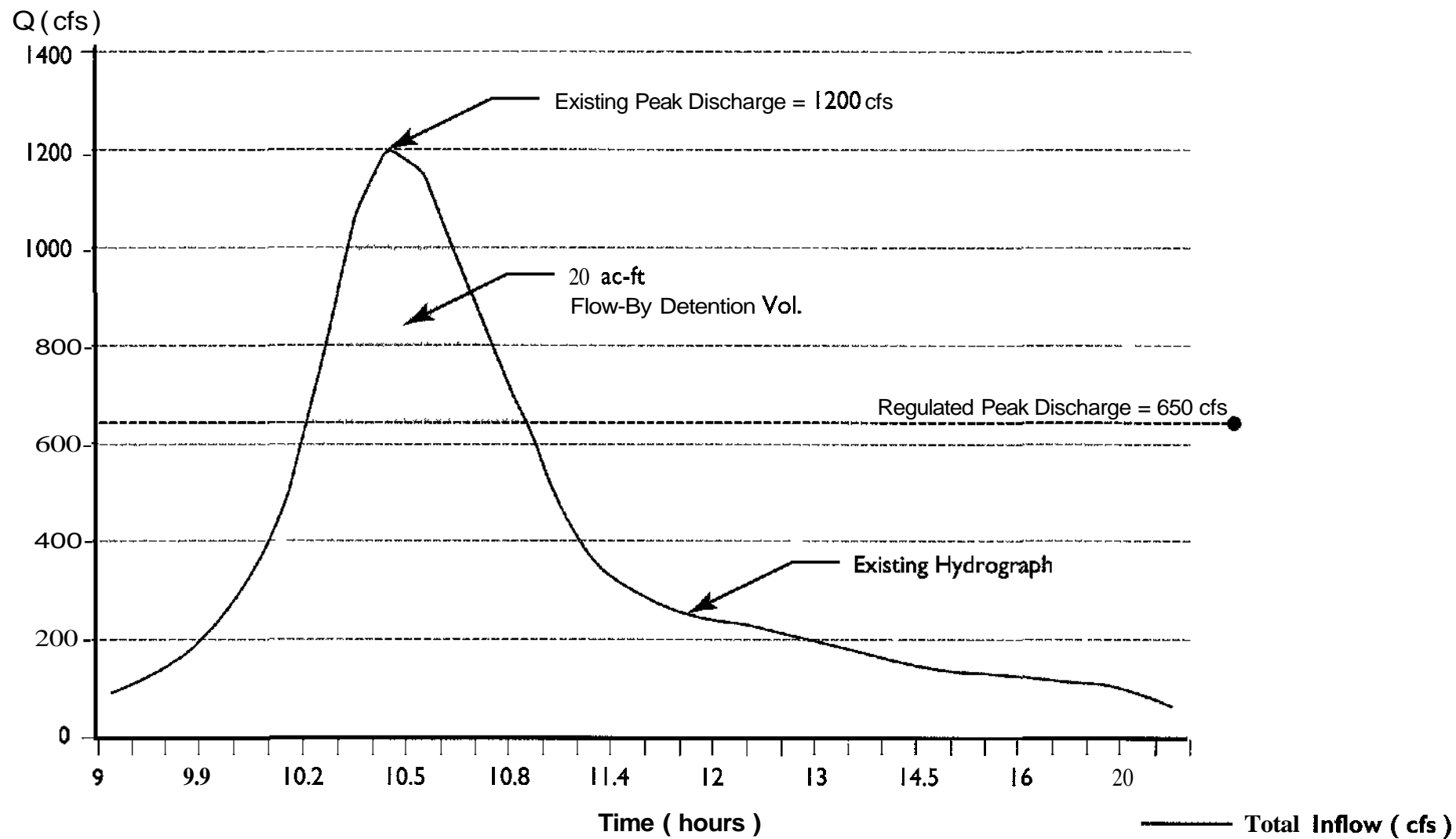
--- 100-YR Flood Boundary



FALLBROOK  
 CALIFORNIA

02-10-2003





Fallbrook 100-Year Storm Hydrograph  
FALLBROOK CREEK RESTORATION PLAN



02 07-2003



**PERCENT OF CAPITAL FLOOD PEAK Q VERSUS RAINFALL FREQUENCY\***

*Fallbrook Creek, Fallbrook*

Estimated Discharges	Fallbrook Culvert Inlet Capacity	Existing Flood Overflows	Proposed Overflow Conditions
$Q_2 = 432$ cfs	415 cfs	17 cfs	0 cfs
$Q_{25} = 880$ cfs	415 cfs	465 cfs	0 cfs
$Q_{50} = 960$ cfs	415 cfs	545 cfs	<10cfs
$Q_{100} = 1,200$ cfs	415 cfs	785 cfs	235 cfs

Based on *Flood and Drainage Management Report for the Fallbrook Area* (Rick Engineering and SD County Department of Public Works, 1992) and the LA County Flood Control Manual.

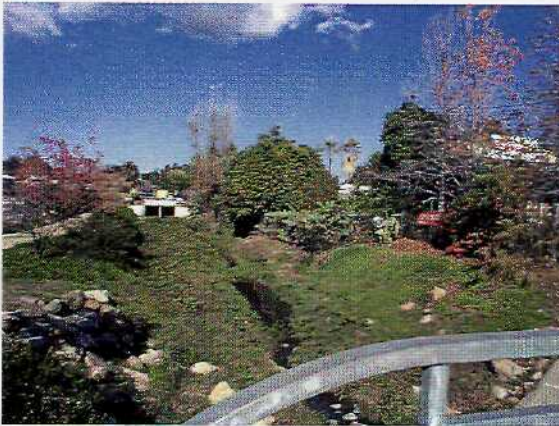
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## PROJECT CONSTRAINTS

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In addition to the existing flood conditions at Fallbrook Street, Fallbrook Creek is also subject to the following constraints within the project area (see pictures below):

- Residential encroachment along the east side of the channel



- Urban runoff from vehicle maintenance facilities, feedlots and domestic animal waste





- Invasive vegetative species throughout the entire channel



- Erosion and sloughing along the east embankment of the channel



- Above grade utility lines crossing channel at various locations





- Inadequate trail access on east side of channel



- Impaired inlets surrounding channel



Figure 4 summarizes the existing conditions of the project site. It is the intent of this proposal to alleviate the flood frequency at Fallbrook Creek while incorporating design features to improve upon the existing conditions noted and adding recreational and aesthetic amenities to the site.





**County of San Diego**  
**OFFICE OF COUNTY COUNSEL**

**JOHN J. SANSONE**  
COUNTY COUNSEL

**NATHAN C. NORTUP**  
**THOMAS E. MONTGOMERY**  
**VALERIE TEHAN**  
CHIEF DEPUTIES

**DIANE BARDSLEY**  
**THOMAS J. HARRON**  
SPECIAL ASSISTANT COUNTY COUNSEL

COUNTY ADMINISTRATION CENTER  
1800 PACIFIC HIGHWAY, ROOM 335  
SAN DIEGO, CALIFORNIA 92101-2480  
(619) 531-4880 FAX (619) 531-8005

**DEPUTIES**

**RALPH E. SHADWELL**  
**C. ELLEN PILBEGER**  
**GEORGE W. BARNHARTEN JR.**  
**WILLIAM A. JOHNSON, JR.**  
**ANTHONY ALBERICI**  
**WILLIAM M. TAYLOR**  
**STEPHEN R. SANDHORN**  
**MORRIS C. HILL**  
**ELLEN K. MICHAELS**  
**WILLIAM DEAN SMITH**  
**EDWARD L. BOZEMAN**  
**MARLA E. STEWART**  
**CLAUDIA ANZURE**  
**ROCKY R. GONCHEZ**  
**ANDREW FREEMAN**  
**TERENCE G. DUTTON**  
**JOHN A. PARSONS**  
**DEBORAH A. MCCARTHY**  
**MARIE A. LISALA**  
**THEODORE M. BABBY**  
**WILLIAM E. POTTINGILL**  
**LAUREN G. FOMAR**  
**JANICE D'GOLD LAM**

**ENGLISH R. BRYANT**  
**LARRY J. ORANGE**  
**JUDITH A. MCCONOUGH**  
**DARIN C. MEAD**  
**CHARLY K. TUCKER**  
**PAUL J. WERNERT**  
**WILLIAM M. SCHER**  
**DEBORAH MURPHY**  
**L. EARL LUDWIG**  
**ROONEY F. LORANG**  
**JAMES R. TODAY**  
**CECILE FLOYD**  
**LEONARD W. POLLARD**  
**KEVIN D. KENNEDY**  
**LISA MALCOMBANE**  
**DAVID J. SMITH**  
**JONATHAN SCHNEIDER**  
**THOMAS D. BURTON**  
**DAVID S. ANTHAN**  
**RYERHANE KUSH**  
**THOMAS CREAM**  
**THOMAS L. BOWEN**  
**MARIA W. ELIDITY**

February 10, 2003

Earl Nelson, Program Manager  
Flood Protection Corridor Program  
Division of Flood Management  
1416 9th Street, Room 1641  
Sacramento, California 95814

Re: **Certification as to Authority of Mission Resource Conversation District to Enter into Grant Agreement**

Dear Mr. Nelson:

Under section 9403 of the California Public Resources Code, the board of directors of the Mission Resource Conservation District ("**District**") may "**accept** gifts and grants of money from any source **whatsoever** to carry out the purposes of the district." **Therefore, the District** is authorized to enter into a grant agreement with the State of California to carry out the purposes of the District.

Very truly yours,

JOHN J. SANSONE, County Counsel

By

WILLIAM A. SMITH, Senior Deputy

WDS/tlm



**J. T. Yean, Ph.D., P.E.**  
**Watershed Management Division**  
**Manager**

#### Education

Ph.D., Mechanical and Environmental Engineering, University of California, Santa Barbara, 1985

M.S., Civil Engineering, University of Iowa, 1981

B.S., Hydraulic Engineering, Tamkang University, 1976

#### Registrations

PE, 1989 - CA#4427

FEI Team Member Since 1995



Dr. Yean is the Senior Project Manager responsible for FEI's environmental and water resources engineering group. Under his management, FEI provides a wide range of hydrology, hydraulics, sediment transport, coastal engineering services and geographical information systems. He has extensive experience in water quality, wetland restoration, flood control, and urban runoff management, and is currently serving as a hydrology consultant to the City of Laguna Niguel. In the past year alone, he has been responsible for the creation of new wetland areas and restoration of degraded wetlands for more than a dozen projects that included water quality treatment solutions.

Dr. Yean is a respected scholar teaching hydrology, hydraulics and groundwater dynamics at California State University Fullerton and has been an advisor to graduate students on the conjunctive use of ground water and surface water. He is involved in the research of numerical modeling of water quality in receiving waters, including temperature exchanges between water bodies and atmosphere, pollutant transport and UV disinfection.

Dr. Yean's recent related experience includes the following:

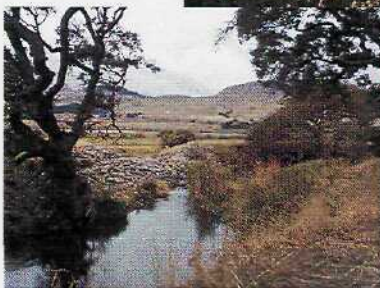
- **Aliso Creek** / Aliso Creek Watershed Development Study (Storm Runoff, Water Quality, and Sediment Transport Analysis)
- **Sulphur Creek** / Aliso Creek Water Quality Mitigation Plan
- **Brea Creek & Coyote Creek** / Puente Hills Watershed Management (Flood Control, Water Quality, and Sediment Transport)
- **Gypsum Canyon Creek** / Mountain Park Watershed Management (Flood Control, Water Quality, and Sediment Transport)
- **Hellman Ranch Wetland** / Seal Beach Constructed Wetland Design for Water Quality Mitigation
- **Water Front Wetland** / Huntington Beach Constructed Wetland Design for Water Quality Mitigation
- **Temescal Wash** / Corona Wetland Restoration
- **Fallbrook Creek** / Mission Resource Conservation District / Urban Creek Restoration Program
- **Brea Canyon Creek** / City of Industry / Riparian Restoration
- **San Mateo Creek** / MCAS, Camp Pendleton / BRAC Wetland Mitigation



# ***Watershed Management Division***

## ***Introduction***

Fuscoe's Watershed Management Division was formulated in direct response to the demand for environmentally sensitive land development practices, balancing the need for growth versus the protection and enhancement of our watersheds and resources. With complex and ever increasing county and state regulations governing storm water management and water quality, demand for these services became imperative.



FEI's Watershed Management Division, headed by Dr. J. T. Yean, P.E., provides a wide range of hydrology, hydraulics, sediment transport and storm water management services as well as GIS expertise. The Division is comprised of a cadre of professional engineers and scientists offering extensive knowledge in water quality assurance, wetland restoration, flood mitigation, detention and routing, sediment transport analysis, and urban runoff control. More recently, the Division has begun providing consultation to local Orange County cities on how to incorporate their NPDES storm water Local Implementation Plans (LIP's).

In addition to creative design solutions, the Watershed Management Division also functions as a prime resource for both agency negotiation and regulatory compliance, and provides valuable assistance to clients for their SWPPPs, WQMPs, NPDES Storm Water Municipal Permits, water quality certification (401, 404, 1603 permits) and technical support for EIR analysis. Division staff members include J. T. Yean, Ph.D., P.E., Water Resources Manager; Mike Ma, Ph.D., Senior Water Resources Engineer; Ian Adam, M.E.S.M., Environmental Scientist; Howard Wen, M.S., Water Quality Scientist; and Scarlett Chou, Graphics Specialist.

### **Specialties / Services**

- **Natural Treatment Systems**
  - Bio-swales
  - Infiltration trenches
  - Constructed wetlands
  - Multi-purpose water quality / detention storm water facilities
  - Pre-treatment structural BMPs
- **Environmental Hydrology**
  - Surface runoff management
  - High-flow frequency analysis
  - Low-flow / dry weather runoff estimates
- **Riverine Hydraulics**
  - Channel modifications
  - Streambed alterations
- **Sediment Transport Analysis**
  - Stability of riverine corridors
  - Debris load estimation
  - Erosion / sediment control and mitigation
- **EIR Support and Analysis**
  - Hydrology / drainage / sediment / water quality
  - NPDES storm water permit compliance
- **GIS Management**
  - Technical and planning level exhibits
  - Land use / pollutant load estimates
- **Wetland Restoration**
  - Enhancement and restoration strategy
  - Hydrology - hydroperiod analysis
  - Engineering and design
- **HOA Monitoring and Maintenance Services**
  - Maintenance manuals for storm water facilities
  - Water quality monitoring programs
- **Rainfall Response Programs**
  - Third party monitoring for construction sites
  - Project Superintendent training for SWPPP compliance

Irvine

San Diego

Inland Empire

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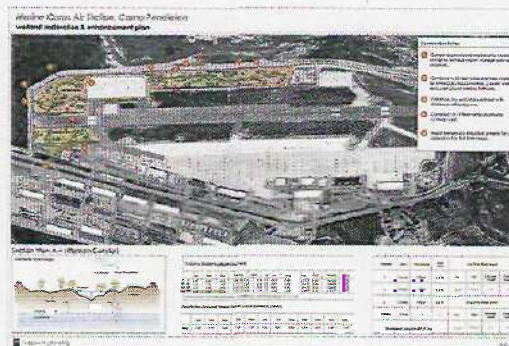


## ■ Marine Corps Air Station Wetland Restoration - Camp Pendleton, CA

U. S. Marine Corps

The client, representing the Marine Corps Air Station, Camp Pendleton, was well aware of the complicated hydrology and drainage impacts related to the newly constructed levee along the Santa Margarita River and recognized the need for expert wetland and riparian habitat restoration consultation.

FEI worked closely with the MCAS to develop a 50-acre restoration plan that improved the existing habitat and hydrology conditions surrounding the airport yet satisfied the drainage requirements for the airport. The development of the restoration plan involved several meetings with the US Fish and Wildlife Service and Corps of Engineers and work is on-going to finalize details of the specific phases of implementation.



## ■ BRAC Wetlands Mitigation Projects - San Mateo and Ysidora Basin, CA

U. S. Marine Corps

In response to Base Realignment and Closure (BRAC) requirements, FEI was hired to the Marine Corps Air Station, Camp Pendleton to evaluate their San Mateo and Ysidora mitigation sites. Both sites were in jeopardy of failing the hydrologic success criteria set by the Army Corps and US Fish and Wildlife Service. For the first phase FEI performed a river morphology analysis based on 60 years of historical aerial photos and field reconnaissance in order to provide MCAS hydrologic recommendations to improve their wetland and riparian habitat. The second phase includes detailed restoration plans to be approved by the Service.



## ■ The Great Park - City of Irvine / County of Orange, CA

Department of Defense - U.S. Navy

FEI is planning and designing land use allocations and infrastructure layout for the reuse of the 4,000 acre El Toro Marine Corps Air Station. In addition to engineering utility, roadway and park use improvements, FEI initiated a "riparian" drainage solution restoring several creeks for habitat, floodway, trail and water quality purposes.



## ■ Wetland Creation and Sulphur Creek Restoration - Laguna Niguel, CA

City of Laguna Niguel, Public Works

This project involved the creation of three treatment wetlands within a four acre site, and included planning, design and monitoring. The project was driven by the ponding water quality liabilities for urban runoff.





■ **East Bluffs - Santa Barbara, CA**

University of California, Santa Barbara Design  
& Construction Services

The East Bluffs Drainage Project arose during the course of improvements to research facilities within the campus. FEI provided an array of options to the University for stabilizing the eastern bluffs while finding alternatives for discharging additional sea water lines.



■ **San Gabriel River Stabilization - Orange County, CA**

Standard Pacific Homes

Prepared a river stability study to model impacts on a development proposed along the San Gabriel River. The study simulated upstream dam entrapments and downstream bottle necks to establish a 100-year flood plain and predict river bed scour potential.



■ **Prado Basin Inundation Study - Riverside County, CA**

The County of Orange  
Public Facilities & Resources Dept.

The project scope of work involved technical analysis of maximum flood inundation impacts behind the Prado Dam, including wave run-up and backwater hydrographs. The studies identified properties and habitats subject to flood impacts ranging from temporary loss of access or use to major damage.



■ **Aliso Creek Watershed - Orange County, CA**

Rutter Development Corporation

Fusco Engineering, Inc. prepared a river stability study to model impacts of a development proposed along Aliso Creek in southern Orange County. The creek has been subject to downstream water quality and erosion problems and contamination has been a concern of local residents for a number of years.





February 12, 2003

Earl Nelson, Program Manager  
Flood Protection Corridor Program  
Division of Flood Management  
1416 9<sup>th</sup> Street, Room 1641  
Sacramento, CA 95814

RE: Packing Plant  
Fallbrook, CA

Dear Earl,

Please be advised that the "Packing Plant" located at 400 Mission Road in Fallbrook is for sale @ \$995,000. The property consists of 1.65 Acres, zoned light industrial, and includes a 45,000 square foot concrete building,

Lee & Associates represents the owner, Cdenek Riha, exclusively. He resides in Fallbrook, CA, phone number 760-728-5167.

We are experiencing a great deal of interest on this property and would encourage you to make an offer if this property fits your needs.

Thank you for your interest,

Best regards,

A handwritten signature in black ink, appearing to read 'Patrick Miller', is written over a large, loopy circular mark.

Patrick Miller, CCM  
Principal, Lee & Associates



**FALLBROOK COMMUNITY PLANNING GROUP**  
**205 Calle Linda, Fallbrook, California 92028**  
**(760) 728-8081**

**Department** of Water Resources  
Flood Management  
**Financial Assistance** Program  
P. O. Box **942836**  
Sacramento, CA **94236-0001**

1 February 2003

This letter is written to convey that the **Fallbrook Community Planning** Group voted **unanimously to support the Mission Resource** Conservation District in **their** proposed **projects** for flood **control** and to recommend that they be granted the **funds** that they are **requesting**.

Sincerely

  
**Jim Russell**  
Chairman



February 11, 2003

A 501(c)(3) Corporation Judy Mitchell

Post Office Box 508  
Fallbrook, CA 92088  
(760) 723-8384  
Fax (760) 728-2340

Mission Resource Conservation District  
PO Box 1777  
Fallbrook CA 920884777  
[missnrkd@TFB.com](mailto:missnrkd@TFB.com)

**BOARD OF DIRECTORS**

Vince Ross, President  
Colleen Aichele, Secretary  
Sharon Mullin, Treasurer  
Bill Ross  
Helene Ross  
Brad Urquhart  
Phil Delaney  
Eileen Delaney  
Steve Lopardo  
Byrn Watson  
JoAnne Watson  
Ted Young  
Mickey McCullough  
Dawne McCullough  
Rita Miller  
Ineke Michels

RE: Letter of Support

Judy;

The Fallbrook Village Association is an enthusiastic supporter of the Mission Resource Urban-Rural Grant Application for Fallbrook's town center- This grant, if approved, will solve many of the problems connected with our community goal of revitalizing our town center. This grant focuses on flood control infrastructure that is environmentally sensitive, and will open new doors for the expansion of commercial, residential, cultural and tourism projects.

This grant, if approved, comes at a strategic time as our community's new zoning for our town center nears final approval. We will be happy to provide you with specifics on the benefits our community would derive from the use of the grant proceeds.

Sincerely,

A handwritten signature, likely of Vince Ross, consisting of a stylized, cursive 'V' followed by a horizontal line.

Vince Ross, President  
Fallbrook Village Association

**ON-GOING PROJECTS**

Art & Cultural Center  
Fallbrook Village Square  
Beech Street Park  
Town Center Concept Plan  
Art Studios of Fallbrook  
Pico Promenade/Paths  
Art in Public Places  
Brandon Gallery

VR:jip

**MISSION STATEMENT**

Develop a vital business and residential downtown to enhance the historic, small town Fallbrook atmosphere, halt deterioration, increase cultural involvement, and promote the "Friendly Village" identity.